

ABSTRACT OF THE DISCLOSURE

An encoding method, which achieves encoding efficiency, and good picture quality encoding even when there exists a picture in which a scene change occurs within an interlaced frame, is provided. A moving pictures encoding method treats a frame of interlaced image input signals as a picture, and performs prediction and encoding for this picture in macro-block units from a picture of both a forward picture, which is temporally in the past, and a backward picture, which is in the future. When performing encoding in accordance with the above-mentioned bi-directional picture, the method performs inter-field motion prediction, which treats as a unit a field, which divides each picture in macro-blocks into either odd numbers or even numbers of pixel scanning lines of this frame, and as a prediction mode, selectively switches in picture units between using prediction from a forward field motion vector for one field, and using prediction from a backward field motion vector for the other field, generates a predictive picture corresponding to the selected prediction mode, and encodes the input signal using the generated predictive picture.